

Panasonic

SD memory card compatible

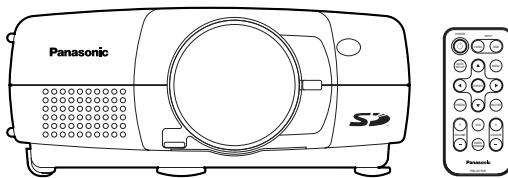
LCD Projector **Commercial Use**

Operating Instructions

(SD Memory Card Functions)

Model No. **PT-L702SDE**

PT-L701SDE



- This LCD projector is designed to be compatible with the SD memory card.

These operating instructions explain how to use the SD memory card and how to play back images which have been recorded on the card. Please refer to the separate PT-L702E or PT-L701E Operating Instructions for details on how to use the LCD projector.

- Before using the SD memory card, be sure to read all documentation, including the "Read this first" booklet, these Operating Instructions and the Operating Instructions for the PT-L702E or PT-L701E LCD projector and also the Warranty card provided.

Contents

| | | | |
|---|-----------|---|-----------|
| Dear Panasonic Customer: | 3 | File names | 19 |
| Safety Precautions | 3 | File format | 19 |
| Notes on using the PC card adapter ... | 4 | | |
| Check accessories | 5 | | |
| Names of each part (SD memory card slot) | 5 | | |
| What is the SD memory card? | 6 | | |
| Examples of using the SD memory card | 6 | | |
| Notes on handling the SD memory card | 7 | | |
| Notes on handling | 7 | Conversion settings for saving images | 25 |
| Notes on storage | 7 | Saving imported images onto the SD memory card | 26 |
| Protecting valuable data | 7 | Saving to other folders | 27 |
| Making backups of the data in the SD memory card | 8 | | |
| Write-protect switch | 8 | | |
| Notes on using the projector | 8 | | |
| Explanation of terms | 9 | | |
| Inserting and removing the SD memory card | 10 | | |
| Inserting the SD memory card | 10 | Selecting the folder (directory) | 28 |
| Removing the SD memory card | 10 | Playing back images | 29 |
| On-screen menus | 11 | Setting the playback method | 29 |
| List of menu screens | 11 | Moving and deleting images | 30 |
| Capturing projected images onto the SD memory card | 12 | Keystone correction in CARD mode .. | 30 |
| Enabling the FREEZE button for making capture recordings | 12 | | |
| Capturing images | 13 | | |
| Using the SD memory card in a Windows PC | 14 | | |
| Inserting the SD memory card | 14 | | |
| Removing the SD memory card | 15 | | |
| Using the SD memory card in a Macintosh | 16 | | |
| Inserting the SD memory card | 16 | | |
| Saving JPEG files onto the SD memory card | 17 | | |
| Removing the SD memory card | 18 | | |
| DCF standard | 19 | | |
| Limits on directory names | 19 | | |

Dear Panasonic Customer:

These instructions provide all the necessary operating information that you may require. We hope it will help you get the best performance from your new product, and that you will be pleased with your Panasonic LCD projector.

Safety Precautions

WARNING

Keep the SD memory card out of the reach of infants.

- If the memory card is swallowed, death by suffocation may result. If you believe that the memory card may have been swallowed, seek medical advice immediately

Caution

Do not insert the SD memory card into devices which are not compatible with the SD memory card (for example, devices which only use multimedia cards).

- If this is not observed, it may not be possible to remove the SD memory card, and damage to the card or to the device may result.

Do not remove the SD memory card from the projector while the card is being accessed for reading or writing (while the SD memory card access indicator inside the card slot cover at the rear of the projector is flashing).

- If this is not observed, the data on the card may become corrupted or erased.

Do not insert any foreign objects into the card slot at the rear of the projector.

- Inserting foreign objects may damage the projector. If the SD memory card is inserted while some foreign object is inside the card slot, it may damage the card and the projector.

Notes on using the PC card adapter

Caution

Do not remove the accessory PC card adapter or the SD memory card while the computer is accessing the SD memory card for reading or writing.

- If this is not observed, the data on the card may become corrupted or erased.

Do not install the accessory PC card adapter to any device other than a PC card slot.

- If this is not observed, damage to the device may result. Before installing the accessory PC card adapter, check that the card slot on the device being used is a PC card (PCMCIA) Type II or Type III card slot.

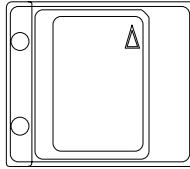
Do not insert any foreign objects into the card slot of the accessory PC card adapter.

- Inserting foreign objects may damage the device. If the SD memory card is inserted while some foreign object is inside the card slot, it may damage the card and the device.

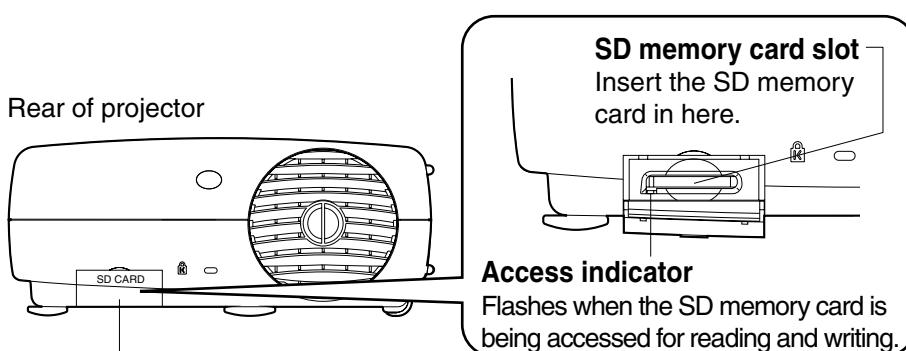
Check accessories

The following accessories are included, in addition to the accessories which are listed in the separate Operating Instructions for the PT-L702E or PT-L701E LCD projector.

| | |
|---|---|
| CD-ROM ... 1 pc. (JPEG Convertor, Operating Instructions) | SD memory card (16 MB) ... 1 pc. |
|  |  |

| | |
|---|---|
| PC card adapter for SD memory card ... 1 pc. | Protective case for SD memory card ... 1 pc. |
|  |  |

Names of each part (SD memory card slot)



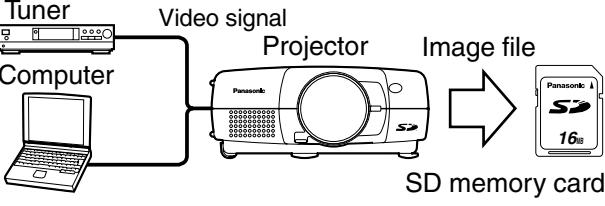
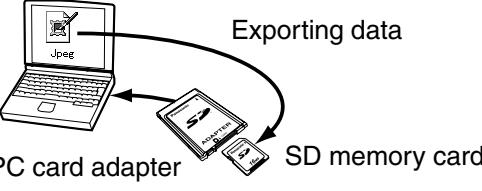
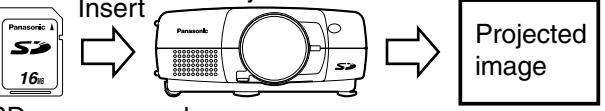
Card slot cover

Covers the SD memory card slot.

What is the SD memory card?

The SD memory card is a semiconductor memory which at 24 mm x 32 mm x 2.1 mm is about the size of a postage stamp. It is a next-generation recording medium which can be used instead of conventional storage devices such as MDs (mini discs), CDs (compact discs) and cassette tapes. In addition, it allows data to be repeatedly recorded, played and erased. The SD memory card can be used to store computer image files, video images (still pictures) and presentations created using Microsoft PowerPoint which have been converted into JPEG images using the accessory JPEG Convertor software, letting you make "PC-free" presentations using just the LCD projector.

Examples of using the SD memory card

| | | |
|-----------|---|---|
| Recording | <p>Capturing images using the projector</p>  <p>The freeze function can be used to capture the moving pictures as still pictures.</p> | <p>Refer to "Capturing projected images onto the SD memory card" on page 12.</p> |
| | <p>Saving images directly using a computer</p>  <p>The accessory JPEG Convertor software can be used to convert image files in other formats (PowerPoint, TIFF, BMP) into JPEG files which can then be saved onto the SD memory card. (Windows only)</p> | <p>Refer to "Using the SD memory card in a Windows PC" on page 14 and "Using the SD memory card in a Macintosh" on page 16.</p> |
| | <p>Projecting JPEG images PC-free (using just the projector)</p>  <p>Images can also be sorted and deleted.</p> | <p>Refer to "Playing back images using the projector" on page 28.</p> |

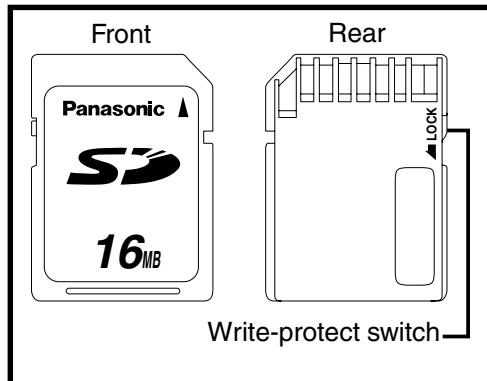
Notes on handling the SD memory card

Be sure to read the following before using the accessory SD memory card.

Notes on handling

Be sure to observe the following.

- Do not disassemble or modify the card.
- Do not subject the card to strong shocks, and do not twist it, bend it, drop it, step on it or immerse it in liquids.
- Do not rub the card with cloth or plastic, or bring it close to objects which may generate static charges or magnetic fields.
- Do not touch the metal terminals with hands or metal objects, attach stickers to them, or allow them to become contaminated in any way.
- Do not remove the attached label from the card.
- Do not attach any other labels or stickers to the card.



Notes on storage

After removing the SD memory card from the projector or other device, always insert it into its protective case.

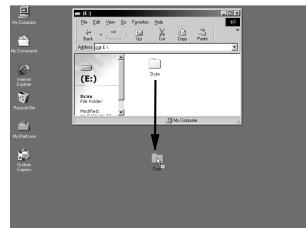
- Do not leave the card inside hot vehicles or in other places with high temperatures such as places exposed to direct sunlight.
- Do not leave the card in places which are exposed to substances such as corrosive gases.

Protecting valuable data

- Do not turn off the projector power supply or remove the SD memory card from the projector while the card is being accessed for reading or writing (while the SD memory card access indicator inside the card slot cover at the rear of the projector is flashing). Failure to observe this may result in loss of data.
- Always make a backup of the data which is stored in the SD memory card. Accidental mistakes in using the card may sometimes result in the loss of valuable data.

Making backups of the data in the SD memory card

- Double-click on the drive icon (refer to page 15) for the SD memory card in My Computer (or on the Desktop if you are using a Macintosh), and then drag the DCIM directory to the Desktop (while clicking the Option button if you are using a Macintosh). This will create a backup copy on your computer of all data in the DCIM directory.



Write-protect switch

- If the write-protect switch on the SD memory card is moved to the LOCK position, it will not be possible to capture images using a projector or to use any file editing functions such as deleting or moving image files. (An error message will be displayed if you try to use any of these functions.)
- If the SD memory card is inserted into a computer using the PC card adapter while the write-protect switch is at the LOCK position, a blue warning screen will be displayed when the computer attempts to access the card. If this happens, press any key on the computer's keyboard to clear the error display. Check that the write-protect switch is not at the LOCK position when using the SD memory card in a computer.

Notes on using the projector

Be sure to observe the following.

- Do not drop the projector or subject it to strong shocks.
- Keep the projector dry at all times.
- Do not use excessive force when opening and closing the card slot cover.
- Do not use the card if it is cracked or bent.
- Do not use the projector in humid environments such as bathrooms, or in dusty environment such as warehouses.

Please make sure that you understand the following before using the SD memory card.

- Panasonic shall not be liable for any damage or losses suffered by the user, either directly or through claims from a third party, arising from or in connection with the use of or problems with the projector or the SD memory card.
- Panasonic shall not be liable for any damage or losses suffered by the user arising from loss of data stored on the SD memory card.

Explanation of terms

Following are definitions for some of the terms used throughout these Operating Instructions.

PowerPoint

Application software for creating presentations which is included as part of Microsoft Office. 95, 97 and 2000 versions are available, but the JPEG Convertor software which is bundled with the projector is only compatible with the 97 and 2000 versions.

JPEG

Abbreviation for Joint Photographic Experts Group. JPEG is the name of an international organisation which was jointly established by the ISO and the ITU-TS (formerly the CCIT), but the term is normally used to refer to the specifications for the still picture compression algorithm which was formulated by the JPEG. This algorithm allows still images such as photographs, single frames of moving images and scanned images to be compressed to up to 1/100th of their original sizes. However, images which are compressed in this way cannot be fully restored to their original quality (some deterioration in quality occurs), so that compression rates of 1/5 to 1/30 are normally used. Because of differences in colour separation, two format sub-types are used: RGB (red, green and blue) and CMYK (cyan, magenta, yellow, black). The projector and the JPEG Convertor software do not support the CMYK sub-type of JPEG file.

BMP

Abbreviation for BitMaP. This is the standard image format for the bitmapped files (image files consisting of a collection of dots) which are handled by Windows. Colour levels of monochrome, 16 colours, 256 colours and 16.7 million colours are supported.

RLE

Abbreviation for Run Length Encoding. It can be used to achieve high rates of compression for image files which contain large areas of a single colour. RLE can be used with monochrome, 16-colour and 256-colour BMP image files. (JPEG

Convertor does not support files compressed using RLE.)

TIFF

Abbreviation for Tagged-Image File Format. This type of file is used to exchange documents between computers. Colour levels of monochrome, 256 colours and 16.7 million colours are supported. TIFF files in 16.7 million colour format can include transparent colour.

LZW

Abbreviation for Lempel-Ziv-Welch. LZW is a compression method used for TIFF files, and is named thus because it was developed by three people named Lempel, Ziv and Welch. It compresses the files by converting patterns within the images into short codes. There is no deterioration in image quality resulting from compression, but high rates of compression which are comparable to JPEG files cannot be expected to be obtained. (JPEG Convertor does not support files compressed using LZW.)

DCF

Abbreviation for Design rule for Camera File system. DCF is a standard which was established by the Japan Electronic Industry Development Association (JEIDA) with the aim of realising a common image file format, directory name format and file name format for the images used with digital still cameras. It is based on recommendations such as Exif Version 2.1.

Exif 2.1

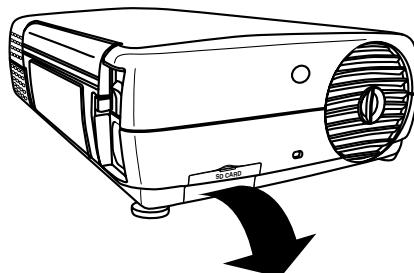
Abbreviation for Exchangeable Image File Format. This is an image file format which was established by the Japan Electronic Industry Development Association (JEIDA). It defines the common information format and range of application for images used with digital still cameras, centring around TIFF and JPEG-format images. Version 2.1 is the latest version of the Exif standard.

Inserting and removing the SD memory card

Inserting the SD memory card

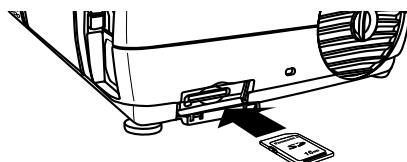
Make sure that the SD memory card is the right way up when inserting it.

① Open the card slot cover.



② Insert the SD memory card as shown below.

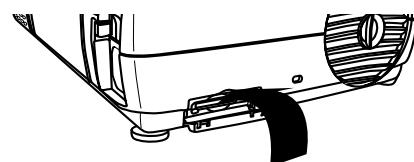
Insert the SD memory card so that the side with the label is facing upwards and the end with the cut-away corner is towards the front. Push the card in until it locks into place.



Note:

- If you try to force the SD memory card into the slot the wrong way, it may damage the card and the slot.

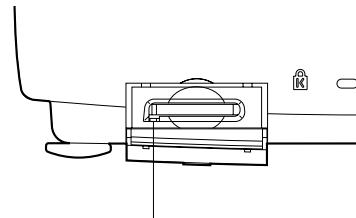
③ Close the card slot cover.



Removing the SD memory card

① Open the card slot cover.

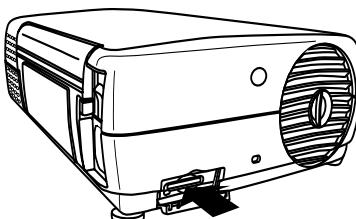
② Check that the access indicator at the lower left of the slot is not flashing (the SD memory card is not being accessed for reading or writing).



Note:

- Before removing the SD memory card, make sure that the access indicator is not flashing. If the card is removed while the access indicator is flashing, it may result in loss of data on the card.

③ Push the centre of the SD memory card to unlock it, and then remove the card.



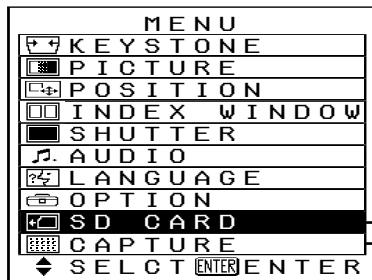
④ Close the card slot cover.

On-screen menus

List of menu screens

The projector allows various settings to be adjusted and changed using on-screen menu operations. The overall structure of the projector menus is shown below.

MAIN MENU



CAPTURE function

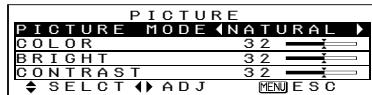
(Page 13)

FILE EDIT menu

(Page 30)

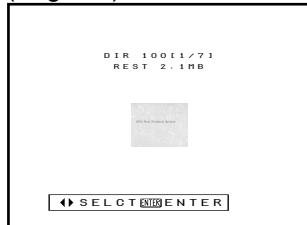


PICTURE



Directory selection screen

(Page 28)



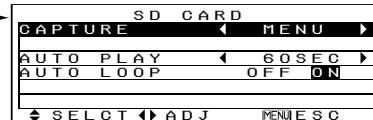
Note:

- Refer to the separate PT-L702E or PT-L701E Operating Instructions for details on the MAIN MENU items other than "SD CARD" and "CAPTURE" and for details on the items in the PICTURE menu.

SD CARD menu

(Pages 12, 29 and 30)

VIDEO or RGB mode



CARD mode

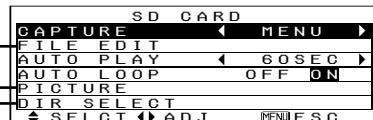


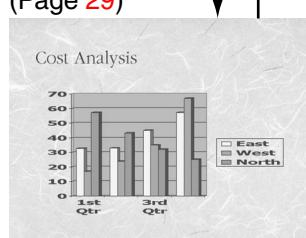
Image selection screen

(Page 28)



Image playback screen

(Page 29)



Capturing projected images onto the SD memory card

It is possible to capture images which are being projected from a source such as a connected computer or VCR, and save these captured images onto the SD memory card which has been inserted into the SD memory card slot of the projector. Images can be captured in one of two ways: by using menu screen operations (used principally for still images), or by using the FREEZE button on the remote control unit (used principally for moving images). YPbPr signals and video signals which include copy-protection signals cannot be captured.

Enabling the FREEZE button for making capture recordings

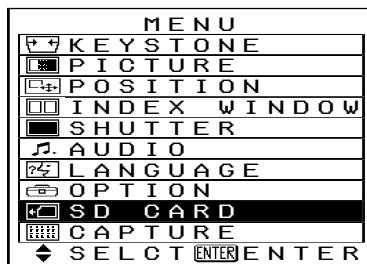
① Press the MENU button.

The MAIN MENU screen will be displayed.

② Press the ▲ or ▼ arrow button to select "SD CARD".

③ Press the ENTER button.

The SD CARD screen will then be displayed.



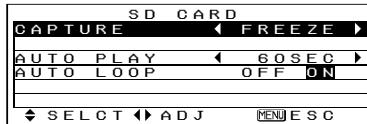
Note:

- If "CARD" is selected using the input select (INPUT, RGB) button, the SD CARD screen will be displayed when the MENU button is pressed, instead of the MAIN MENU screen.

④ Press the ▲ or ▼ arrow button to select "CAPTURE".

⑤ Press the ◀ or ▶ arrow button so that "FREEZE" is set.

If set to "MENU", the capture function will not operate even when the FREEZE button is pressed.

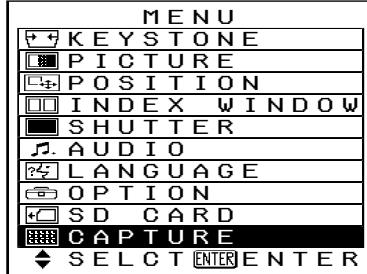


Note:

- If the capture setting is set to "FREEZE", only the vertical keystone correction function will be inoperable. (The picture image on the screen will appear to be distorted in the vertical direction, but the captured image will not have this distortion.)

If the FREEZE button is not required for capturing images, or if you do not want the image to appear distorted while projection is paused, change the capture setting to "MENU".

Capturing images

| | Using the FREEZE button | Using the MAIN MENU |
|---|---|---|
| ① | Insert the SD memory card into the projector according to the procedure given on page 10. | |
| ② | Project the screen image to be captured. Use the input select (INPUT, RGB, VIDEO) button to select the input signal, or operate the signal source (such as the computer or VCR) to project the screen image to be captured. | |
| ③ | Press the FREEZE button on the remote control. | Press the MENU button to display the MAIN MENU screen. |
| ④ | If the image being projected is okay as it is, press the FREEZE button. A confirmation screen will be displayed. Use the ◀ or ▶ arrow button to select "YES", and then press the ENTER button.  | Use the ▲ or ▼ arrow button to select "CAPTURE", and then press the ENTER button.  |
| ⑤ | Capturing will then start, so wait until it is complete (approx. 30 seconds [for a RGB signal]). When capturing is complete, the directory number and file number for the saving location of the captured image will be displayed as shown at right. |  Freespace on SD memory card Directory number-Filenumber |
| ⑥ | Press the MENU button to end the capture procedure. To capture another image, repeat the procedure from step ②. | |

Note:

- If there is not enough free space on the SD memory card, "CARD FULL" or "ERROR" will be displayed. You can either delete unwanted images by following the steps given on page 30, or you can insert another SD memory card which has sufficient free space available.
- If the write-protect switch of the SD memory card is set to the LOCK position, "WRITE PROTECTED" will be displayed. Remove the SD memory card from the projector and move the write protect switch from the LOCK position to continue.
- If the SD memory card is removed before the capturing operation is complete, it may result in loss of data on the card.

Using the SD memory card in a Windows PC

The accessory PC card adapter can be used to insert the SD memory card into a computer with a built-in PC (PCMCIA) card slot which is either Type II or Type III compatible. The accessory JPEG Convertor software can then be used to edit and save images onto the card.

PC card adapter

Inserting the SD memory card

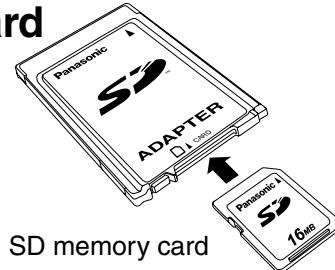
- ① Insert the SD memory card into the PC card adapter as shown in the illustration at right.

Push the card in until it locks into place.

Make sure that it is facing the correct way.

Note:

- If the SD memory card is inserted into a computer using the PC card adapter while the write-protect switch is at the LOCK position, a blue warning screen will be displayed when the computer attempts to access the card. If this happens, press any key on the computer's keyboard to clear the error display. Check that the write-protect switch is not at the LOCK position when using the SD memory card in a computer.



- ② Insert the PC card adapter into the PC card slot of the computer.

- ③ If using the SD memory card for the first time on a computer running Windows, the Add New Hardware Wizard will start. Click Next.

Note:

- When using the SD memory card for the second time onwards, the following setting steps are not necessary.

- ④ Select "Display a list of all drivers in a specific location, so you can select the driver you want." and then click Next.

- ⑤ Select "Standard IDE/ESDI Hard Disk Controller" and then click Next.

Follow the prompts which appear on the screen to continue with the installation. Lastly, click End to finish.

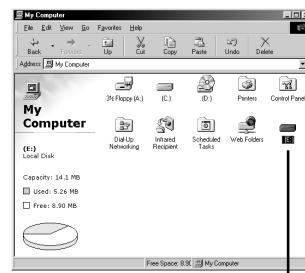


⑥ Open My Computer on the Desktop, and check that the icon for the new drive appears.

The drive icon is the same icon as that used for hard disks, but you can check which icon is which by looking at the disk capacity (14.1 MB for a 16-MB SD memory card). (The drive letter will appear as D:, E:, F: or something similar, depending on the computer you are using.) If the drive capacity does not appear as shown in the illustration at right, select the drive icon, and then press [ALT] + [ENTER] to display the Properties dialog box in order to check the capacity.

Note:

- The screens shown for each of the installation steps are Windows 98 screens. The appearances of these screens will vary depending on which version of Windows you are using. If you are prompted to select a driver at the New Hardware screen, select Standard Windows driver and then click OK. Refer to the Windows online help for further details.
- Operations such as deleting, copying or renaming files and creating or deleting folders (directories) can be carried out in the same way as for a normal hard disk. For details, refer to the documentation and help files for the operating system being used.
- The projector can only handle DCF-compliant directories and files. If the directories and files on the SD memory card are not DCF-compliant, the projector will not be able to recognise them. For further details, refer to page 19.



SD memory card drive icon

Removing the SD memory card

Follow the procedure below to remove the SD memory card.

- ① Close all applications software which is using the SD memory card.
- ② Left-click the PC Card icon (a small card icon) in the taskbar at the bottom-right of the screen.

Note:

- If the PC Card icon does not appear in the taskbar at the bottom-right of the screen, click Start, point to Settings, click Control Panel and then open PC Card. Click the Show control on taskbar check box and then click OK.

③ Select and click Stop Standard IDE/ESDI Hard Disk Controller or Stop BN-SD SeriesPCMCIA Disk Controller.



④ The screen shown at right will appear. Click OK to remove the PC card adapter.
 ⑤ Press the eject button of the PC card adapter and take out the SD memory card.

Note:

- Be sure to follow the removal procedure correctly. If the correct procedure is not followed, it may result in damage to the card or loss of data on the card.



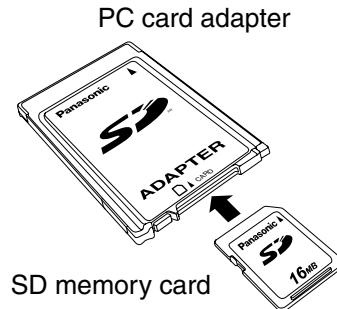
Using the SD memory card in a Macintosh

The accessory PC card adapter can be used to insert the SD memory card into a Macintosh with a built-in PC (PCMCIA) card slot which is either Type II or Type III compatible. You can then save images from the Macintosh onto the SD memory card and edit these images.

Inserting the SD memory card

① Insert the SD memory card into the PC card adapter as shown in the illustration at right.

Push the card in until it locks into place.
 Make sure that it is facing the correct way.



Note:

- If the SD memory card is inserted into a Macintosh using the PC card adapter while the write-protect switch is at the LOCK position, it will take a long time (a few minutes depending on the case) for the Macintosh to recognise the card, and an error message may appear. If this happens, take the SD memory card out of the Macintosh by following the steps on page 18, and change the position of the write-protect switch so that it is not at the LOCK position.

② Insert the PC card adapter into the PC card slot of the Macintosh.

The drive icon will be added automatically to the Desktop.

③ Files can then be save and edited in the same way as when using a floppy disk or MO drive.

Note:

- For Macintosh computers, a System Extension such as PC Exchange or File Exchange is required. If such a System Extension has not been installed, a message such as "This disk is unreadable by this Macintosh. Do you want to initialize the disk?" will appear. Do not initialise the SD memory card under any circumstances. If the SD memory card is formatted (initialised for Macintosh use), the SD memory card will no longer be recognised by the projector. Always click the Eject button to remove the SD memory card, and then install the require System Extension such as PC Exchange or File Exchange. (For details, refer to the instruction manual or help files for the Mac OS.)
- Operations such as deleting, copying or renaming files and creating or deleting folders (directories) can be carried out in the same way as for a normal hard disk. For details, refer to the documentation and help files for the operating system being used.
- The projector can only handle DCF-compliant directories and files. If the directories and files on the SD memory card are not DCF-compliant, the projector will not be able to recognise them. For further details, refer to page 19.



Saving JPEG files onto the SD memory card

JPEG files which have been created using a graphics program or transferred from a digital camera to the Macintosh can be saved onto the SD memory card, and these files can then be played back using the projector.

Note:

- Make sure that you have read the section titled "DCF standard" on page 19 before working with files in this way.

① Open the drive icon for the SD memory card, press the "apple" and "N" keys to create a new folder (directory), and rename the directory to "DCIM".

If you have already used SD memory card to capture images by the projector, or if the SD memory card already contains files which were photographed by a DCF-compliant digital camera, the "DCIM" directory will already exist, and there is no need to create a new directory.

② Open the "DCIM" directory which has been created, press the "A" and "N" keys to create a new folder (directory), and change the name of the directory to a name that conforms to the DCF standard (example: 100abcde).

In the same way as in step ① above, an existing directory which is already DCF-compliant can be used.

③ Drag and drop the JPEG file you would like to save into the directory.

The file will be copied into the directory. (The original file will not be deleted from the Macintosh.)

④ Change the name of the copied file to a name which is DCF-compliant (example: abcd0001.jpg).

After the file copying is complete, take the SD memory card out of the Macintosh by following the steps below and then insert it into the projector to play back the file.

Removing the SD memory card

Remove the SD memory card from the Macintosh by following the steps below. Close all applications which are using the SD memory card.

- ① Drag the drive icon for the SD memory card on the Desktop to the Trash, and take out the PC card adapter.**
- ② Press the eject button on the PC card adapter and take out the SD memory card.**

Note:

- Be sure to follow the removal procedure correctly. If the correct procedure is not followed, it may result in damage to the card or loss of data on the card.



DCF standard

This projector can only play back image files which comply with the DCF specification. The DCF specification imposes the following conditions. Image files or directories which do not conform to these conditions cannot be recognised by the projector.

Limits on directory names

Directories must be created as sub-directories of the DCIM directory on the SD memory card.

- Data which is contained within any directory other than the DCIM directory cannot be recognised.

Directory names must consist of three numerals (directory number) followed by five alphanumeric characters. (Example: 100abcde)

- The three numerals must make up a number between 100 and 999, and the alphanumeric characters can be taken from the following set of 37 characters: 0123456789abcdefghijklmnopqrstuvwxyz_ (No distinction is made between upper-case and lower-case alphabetic characters. Double-byte characters cannot be used.)

Multiple directories using the same three-digit combination (directory number) cannot be created.

- For example, if two directories exist named "100abcde" and "100fghij" respectively, the projector will not recognise them.

Directory sub-hierarchies are not supported.

- For example, if a directory called "323fghij" is created as a sub-directory of the "102abcde" directory, the projector will not be able to recognise the sub-directory.

File names

File names must consist of four alphanumeric characters followed by four numerals (file number), followed by ".jpg". (Example: abcd0001.jpg)

- The four numerals must make up a number between 0001 and 9999, and the alphanumeric characters can be taken from the following set of 37 characters: 0123456789abcdefghijklmnopqrstuvwxyz_ (No distinction is made between upper-case and lower-case alphabetic characters. Double-byte characters cannot be used.)

Multiple file names using the same four-digit combination (file number) cannot be created.

- For example, if two files exist named "abcd0001.jpg" and "efgh0001.jpg" respectively, the projector cannot recognise them normally.

File format

- Only JPEG image files which comply with the Exif 2.1 standard are recognised.

Using JPEG Convertor

The CD-ROM which is included with the projector contains the JPEG Convertor software (for Windows only). To use this software, read the "Read this first" booklet which is also included, and then install the JPEG Convertor.

What JPEG Convertor can do

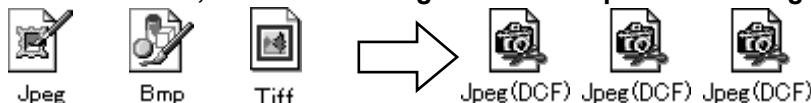
The functions of JPEG Convertor are shown below.

Conversion of PowerPoint files (.ppt extension) to DCF-compliant JPEG images

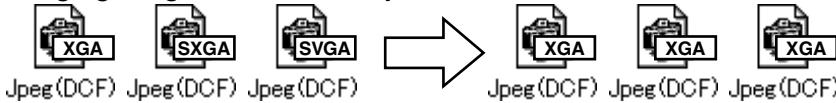


PowerPoint 97/2000 must be installed on the computer which is being used to do the conversion.

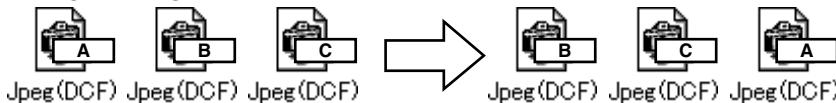
Conversion of JPEG, BMP and TIFF images to DCF-compliant JPEG images



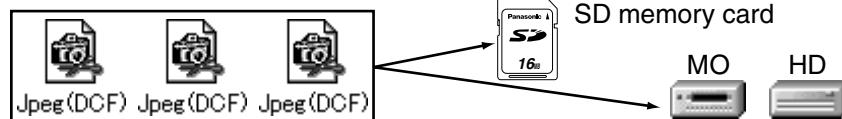
Changing image sizes and compression rates



Sorting of images

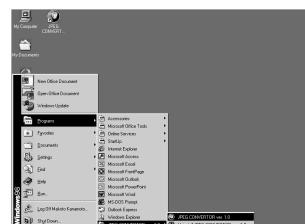


Saving images to locations such as a SD memory card, hard disk or MO drive



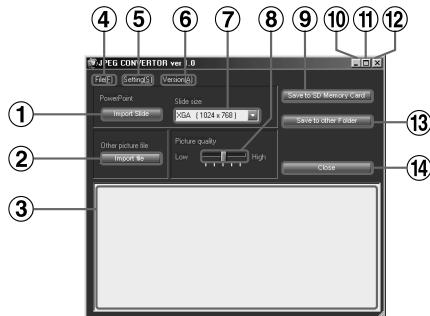
Starting JPEG Convertor

To start JPEG Convertor, click Start, point to Programs, point to JPEG Convertor Ver 1.0 and then click JPEG Convertor Ver 1.0.



Main screen functions

When JPEG Convertor is started, the main screen shown in the illustration below appears.



① Import Slide button

Imports presentation files created using Microsoft PowerPoint into JPEG Convertor.

② Import file button

Imports image files (JPEG, BMP or TIFF format) created using other applications into JPEG Convertor.

③ Thumbnail screen

Displays small previews of the images which have been imported into JPEG Convertor. If you right-click on any of the thumbnail images in this screen, the images can be displayed in actual size, sorted or deleted.

④ File menu

Commands such as Import Slide, Import file, Save to SD Memory Card, Save to other folder and Close can be selected from this menu.

⑤ Setting menu

Lets you select the various settings to be applied (such as DCF format conversion, thumbnail creation and size conversion) when images are imported.

⑥ Version

Lets you check the software version information for JPEG Convertor.

⑦ Slide size list box

Lets you select the image size for presentation files created using Microsoft PowerPoint when they are imported into JPEG Convertor.

⑧ Picture quality slider

Lets you adjust the quality (compression rate) of the JPEG images when they are being saved using the Save to SD Memory Card and Save to other folder commands.

⑨ Save to SD Memory Card button

Converts imported images into JPEG images and saves them onto an SD memory card. When an image is saved, a new directory is created in the DCIM directory (created automatically at this time if it does not already exist) on the SD memory card.

⑩ Minimize (–) button

Minimizes the JPEG Convertor window and makes it appear as a button on the taskbar.

⑪ Maximize (□) button

Enlarges the JPEG Convertor window so that it fills the whole of the screen. When the window is maximized, click the Restore button (□) to return the window to its previous size.

⑫ × button

Closes JPEG Convertor. It works in the same way as the Close button.

⑬ Save to other folder button

Saves the JPEG images to some other location such as a hard disk or MO drive.

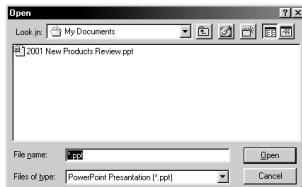
⑭ Close button

Works in the same way as the × button.

Importing presentation files created using Microsoft PowerPoint

① Check the size in the Slide size drop-down list box.

The projector can project JPEG images which are of XGA size, so Slide size should be set to "XGA (1024 x 768)".



Note:

- If Slide size is set to SXGA size, you can create JPEG files with the maximum quality, but they will be converted to XGA size when they are projected by the projector. Furthermore, the file size will also become bigger. (This will reduce the number of images which can be stored on a single SD memory card.) In addition, Slide size can be set to SVGA size to reduce the file size, but when such images are projected by the projector, they will be increased to XGA size, resulting in losses in picture quality.

② Click Import Slide, and then select the presentation file to import.

An Open window such as the one shown in the illustration will appear. Use the drop-down list box or double-click the folder icons to navigate to the location of the presentation file to be converted, and then select the file to be converted and click Open.

Note:

- Only presentation files which are in PPT format (which have a .ppt extension)

can be imported. For files in other formats (such as those with .pps extensions), open the file in PowerPoint and re-save it in PPT format.

③ An import window such as the one in the illustration will appear. If you wish to import all slides in the presentation, click Import All.



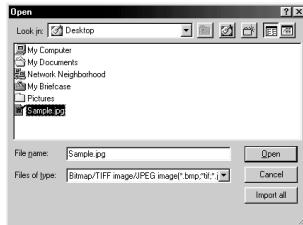
If you wish to import selected slides, click Prev Slide or Next Slide to display a slide you wish to import, and then click Import. When the import is finished, click Cancel/Exit.

Note:

- The imported slides will be converted to an aspect ratio of 4:3. It is not recommended that you import slides which do not have a 4:3 aspect ratio, as the image may not reproduce correctly.
- If you wish to cancel the import after clicking Import All, click Cancel/Exit.
- An error may occur when the files are converted on a computer which has PowerPoint 97 installed. If this happens, the error may disappear if the files are converted on a computer which has PowerPoint 2000 installed.

Importing JPEG, BMP and TIFF files created using other applications

Click Import file, and then select the folder and then the image you wish to import.



An Open window such as the one shown in the illustration will appear. Use the drop-down list box or double-click the folder icons to navigate to the location of the image file(s) to be converted, and then select the file(s) to be converted and click Open. If you click Import All, all image files in the folder which is currently open will be imported.

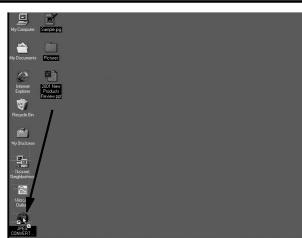
Images which cannot be imported

It may not be possible to import some files with the following properties, even if they are in JPEG, BMP or TIFF format.

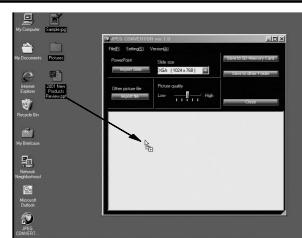
- Files which are more than 10,000 pixels in width or height
- BMP files which have been compressed using RLE compression
- TIFF files which have been compressed using LZW compression
- JPEG or TIFF images in CMYK (Cyan, Magenta, Yellow, Black) format

Importing files using drag-and-drop

JPEG Convertor is compatible with drag-and-drop operations. Select the folder and then the file to be converted, and then drag it onto the JPEG Convertor shortcut icon on the Desktop, or drag it to the open JPEG Convertor window. If JPEG Convertor is not already running, it will then start and the selected file will be imported.



Dragging and dropping onto the shortcut icon



Dragging and dropping into the application window

Checking, sorting and deleting images

JPEG Convertor lets you enlarge the imported images which are displayed in the thumbnail screen for checking, and also lets you sort the images into a particular order for displaying during a presentation. You can also delete unneeded images.

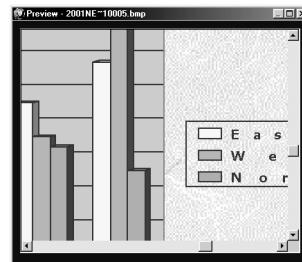
Checking images

Double click on the image you wish to check.

An enlarged view of the image will appear, so that you can check that the image has imported correctly.

Note:

- You can also enlarge thumbnail images by right-clicking on them and selecting Display picture from the pop-up menu.



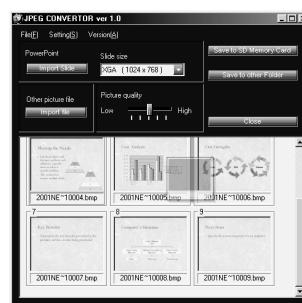
Sorting images

Drag the thumbnail image and drop it in the place where you wish the image to appear.

A green dividing line appears between the images. If you release the mouse button when the thumbnail image is in the desired location, the image will move to that location.

Note:

- You can also move thumbnail images by right-clicking on them and selecting Sort from the pop-up menu, and then using the Arrange Images dialog box which appears.



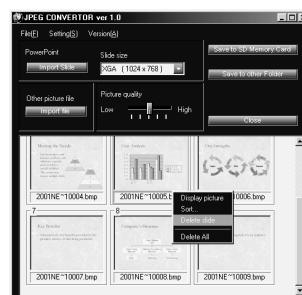
Deleting images

Select the image you wish to delete.

You can select multiple images by pressing the Ctrl key while clicking on each image to be selected. You can also press the Shift key to select all images within a range between two images.

Right-click in the thumbnail image screen, and then select Delete slide from the pop-up menu to delete the selected images from the thumbnail screen.

If you select Delete All in the pop-up menu, all imported images will be deleted.



Click Yes in the confirmation dialog box.

The selected image files will be deleted from the thumbnail screen.

Note:

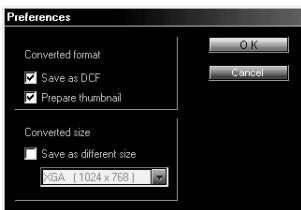
- The original image files will not be deleted. Only the imported files will be deleted.

Conversion settings for saving images

The conversion settings to be used when saving images onto the SD memory card or into other folders can be set using the Preferences dialog box which appears when Preferences is selected from the Setting menu, or using the Picture quality slider in the main application window.

Save as DCF check box

If this check box is selected, the file name and folder name will be converted to DCF format (refer to page 19) when the file is saved.



If this check box is not selected, the file will be saved with the file name which appears below the image in the thumbnail screen.

Note:

- When saving the image onto an SD memory card, the format will automatically be converted to DCF.

Prepare thumbnail check box

If this check box is selected, a thumbnail image will be created and embedded in the JPEG file when the file is saved.

Note:

- When saving the image onto an SD memory card, thumbnail images will be created automatically regardless of this check box setting.

Save as different size check box

If this check box is selected, the file will be converted to the size specified in the Converted size list box when the file is saved.

Note:

- When converting from PowerPoint presentation files, the file will be saved at the same size which was set at the time of importing, regardless of this check box setting.

Converted size list box

The projector can project JPEG images which are of XGA size, so Converted size should be set to "XGA (1024 x 768)". If the Save as different size check box is not selected, the Converted size setting will be ignored.

Picture quality slider



This adjusts the image quality (compression rate) for JPEG images when they are being saved using the Save to SD Memory Card and Save to other folder commands. If a higher image quality is selected, the resulting file size will be greater, and if a lower quality is selected, the resulting file size will be smaller (about 1/5 the size compared to when high quality is selected).

Note:

- JPEG is an effective compression method for natural images such as photographs. Presentations created using PowerPoint and illustrations created using graphics programs may show some deterioration in image quality even if a high-quality setting is used.

Saving imported images onto the SD memory card

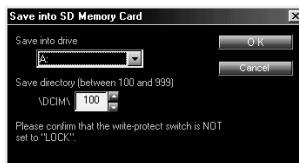
Once the images have been imported and sorted, you then need to save them onto the SD memory card.

① Use the PC card adapter to insert the SD memory card into the computer. (Refer to page 14.)

Check that the write-protect switch on the SD memory card is not at the LOCK position.

② Click Save to SD memory card.

③ Select the destination drive and directory in the Save into SD Memory Card window.



The Save into drive list box shows all of the drives which can be used by the computer. Furthermore, you can use the direction keys (↑↓) next to the destination directory number to select the desired directory number. (The directory number will be set automatically to an unused number.) Furthermore, you can also use the numeric keys to enter a directory number directly, but be sure to enter a number between 100 and 999.

Note:

- If you are not sure of the designation for the destination drive (the SD memory card drive), refer to page 15 for instructions on how to check.

④ Click OK to save the image.



If the specified directory number is already in use, a confirmation window will appear. If you click No, the save operation will be cancelled, and you can then enter a new directory number.

If you click Yes, the Over write to destination dialog box will appear. Select one of the following operations.



Over write

The existing file will be deleted and the new file will be saved in its place.

No

The file will not be saved, and the operation will skip to the next file.

Subsequent

The next-largest file number for that directory will be used in saving the file.

Over write all

The same operation as Over write will be carried out for all remaining files.

Stop

Saving of files will be cancelled and the main application window will reappear.

Saving to other folders

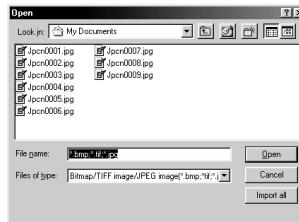
You can save images to a location such as the computer's hard disk or a MO drive by clicking on Save to other folder.

Click Save to other folder and select the destination folder for saving.

A Select folder window such as the one in the illustration will appear. Use the drop-down list box or double-click the folder icons to open the folder you wish to save the file in, and then click Save.

Note:

- You can create new folders by clicking Create new folder (📁).



Playing back images using the projector

Selecting the folder (directory)

① Use the input select (INPUT, RGB) button to select "CARD".

② At the directory selection screen, use the \blacktriangleleft or \triangleright arrow button to select the directory.

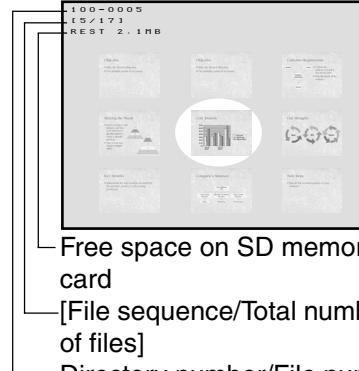
A thumbnail image of the first image in each directory and the directory information will be displayed.



Free space on SD memory card
Directory number [Directory sequence/Total number of directories]

③ Press the ENTER button.

The image selection screen will be displayed and a 3×3 arrangement of thumbnail images of the files in the directory will appear. The selected file will be spot-displayed. Use the \blacktriangleup , \blacktriangledown , \blacktriangleleft or \triangleright arrow button to move the spot, and use the \blacktriangleup or \blacktriangledown arrow button to scroll up and down if there are more than nine images. Furthermore, the image information for the currently-selected image will be displayed in the top-left corner of the screen.



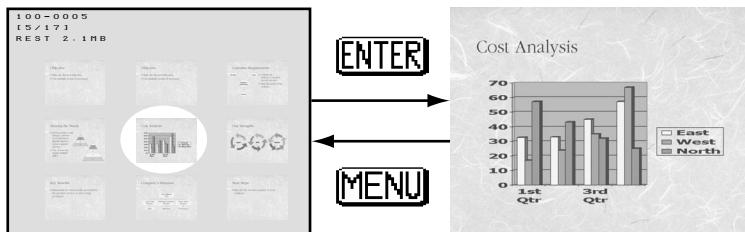
Free space on SD memory card
[File sequence/Total number of files]
Directory number/File number

Note:

- If there is no thumbnail image already embedded in an image file, it will take extra time to display a thumbnail image for that file.
- Directories which do not contain any image files cannot be selected.

Playing back images

Press the ENTER button at the image selection screen. The selected image will then be played back. If the MENU button is pressed during playback, the display will return to the image selection screen.

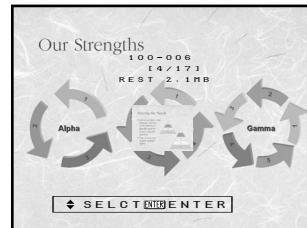


Pressing the ◀ or ▶ arrow button during playback

This will play back the image immediately before or after the current image. However, if AUTO PLAY has been enabled (in other words, if it is not set to OFF), playback returns to the image immediately before the current image and then pauses when the ◀ arrow button is pressed. When the ▶ arrow button is pressed, playback resumes.

Pressing the ▲ or ▼ arrow button during playback

This will display the thumbnail image in the centre of the screen. You can then press the ▲ or ▼ arrow button again to select an image, and then press ENTER to play back the selected image.

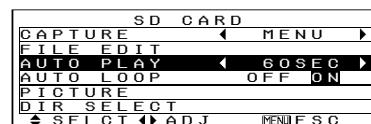


Setting the playback method

The following playback methods can be set using the SD CARD menu.

Automatic playback (AUTO PLAY)

When images are being played back, this sets the time interval for projecting a single image before switching to the next image. It can be set to between 5 and 60 seconds, in steps of 5 seconds. If set to "OFF", automatic switching of images is not carried out.



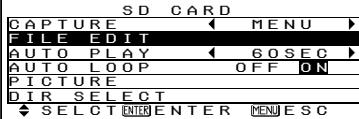
Note:

- The setting time is a guide only. Actual playback times will vary according to the sizes of the images.

Automatic looping (AUTO LOOP)

If AUTO LOOP is set to ON when a time for automatic switching of images has been set using the above item, once the last image in a directory has been played back, playback automatically returns to the first image in the directory.

Moving and deleting images

| | Deleting | Moving |
|---|---|--|
| ① | At the image selection screen, press the ▲, ▼, ◀ or ▶ arrow button to select the desired image. | |
| ② | Press the MENU button. The SD CARD screen will be displayed. | |
| ③ | Press the ▲ or ▼ arrow button to select "FILE EDIT", and then press the ENTER button. |  |
| ④ | Use the ▲ or ▼ arrow button to select the desired operation (DELETE or MOVE), and then press the ENTER button. |  |
| ⑤ | <p>At the confirmation screen, use the ◀ or ▶ arrow button to select "YES", and then press the ENTER button.</p> <p>The selected image file will be deleted. If you select "NO", the display will return to the image selection screen.</p> | <p>The display will return to the image selection screen. Press the ▲, ▼, ◀ or ▶ arrow button to move the image to the desired location, and then press the ENTER button.</p> <p>The selected image will be moved to the point before the selected position.</p> |

Note:

- Each directory must contain a minimum of one JPEG image file that can be recognised by the projector. An image cannot be deleted if it is the only image in a directory.

Keystone correction in CARD mode

When the projector is in CARD mode, the MAIN MENU screen will not be displayed. This means that the menu cannot be used to make keystone correction settings, but automatic keystone correction can still be carried out by pressing the AUTO SETUP button. However, if "AUTO KEYSTN" in the OPTION menu is set to "OFF", the automatic setup function will not operate.

Note:

- In any other mode (RGB1, RGB2, VIDEO or S-VIDEO), the MAIN MENU screen will be displayed, so keystone correction can be carried out in these modes. If keystone correction is carried out in some other mode, there is no need to do it again in CARD mode.

Troubleshooting

| | |
|-------------------|---|
| NO FILE | There are no image files that can be displayed by the projector on the SD memory card. |
| CARD FULL | There is no free space on the SD memory card. |
| WRITE PROTECTED | The write-protect switch on the SD memory card is set to the LOCK position. Capturing, deleting and moving files is not possible. |
| NON STANDARD CARD | A non-standard card has been inserted. |
| COPY GUARD SIGNAL | The video signal being input includes a copy guard signal. Capturing is not possible with such signals. |
| LAST FILE | The directory contains only one file, and this file cannot be deleted. |
| NO CARD | No SD memory card has been inserted. |
| ERROR | An error has occurred with some operation. If the error cannot be reset by pressing the input select (INPUT, RGB, VIDEO) button, turn off the projector power by following the procedure given under "Turning off the power" in the PT-L702E or PT-L701E Operating Instructions, and then turn the power back on again. |

Before asking for service

Check the following before asking for service.

| Symptom | Check the following |
|--|--|
| Computer cannot recognise the SD memory card | <ul style="list-style-type: none"> Has the PC card adapter been securely inserted into the PC card slot of the computer? Has the SD memory card been securely inserted into the SD memory card slot of the PC card adapter? Has the driver been installed correctly? Are insufficient computer system resources available? (Refer to the Windows online help.) |
| Writing is not possible | <ul style="list-style-type: none"> Is the write-protect switch on the SD memory card set to the LOCK position? |
| Video signals from the computer cannot be projected. | <ul style="list-style-type: none"> If using a notebook computer, has the external output been configured properly? (It may be possible to toggle the external output settings by pressing the Fn key and the F3 key at the same time. This depends on the type of computer you are using. Check the computer documentation for details.) |

Specifications

Some of the following specifications are also given in the separate PT-L702E or PT-L701E Operating Instructions, but refer to the following for specifications pertaining to this particular model (PT-L702SDE or PT-L701SDE).

Power supply: 100 V–240 V ~, 50 Hz/60 Hz

Power consumption: 240 W Approx. 5 W–10 W when in standby mode
(when fan is stopped)

LCD panel:

Panel size (diagonal): 0.9 type (22.86 mm)

Aspect ratio: 4:3 (16:9 compatible)

Display method: 3 transparent LCD panels (RGB)

Drive method: Active matrix method

Pixels: 786 432 (1024 x 768) x 3 panels

Lens: Manual zoom (1–1.3) / focus lens

Lamp:

PT-L702SDE: UHM lamp (165 W)

PT-L701SDE: UHM lamp (160 W)

Luminosity:

PT-L702SDE: 1200 lm/ANSI

PT-L701SDE: 1000 lm/ANSI

Scanning frequency: (for RGB signals)

Internal data (point scanning) method

| | |
|-------------------------------|-----------------|
| Horizontal scanning frequency | 24 kHz–97 kHz |
| Vertical scanning frequency | 50 Hz–120 Hz |
| Dot clock frequency | 135 MHz or less |

YP_BP_R signals: NTSC (480i), 480p, PAL (625i), 720p, HDTV (1080i/1035i)

Colour system: 6 (NTSC/NTSC 4.43/PAL/PAL-M/PAL-N/SECAM)

Projection size: 762 mm–7620 mm (30"–300")

Throw distance: 1.1 m–11.7 m (3'8"–38'4")

Optical axis shift: 9:1 (fixed)

Screen aspect ratio: 4:3

Installation: Front/Rear/Ceiling/Desk (Menu selection method)

Speakers: 2.8 cm round x 2

Max. useable volume output: 2 W (1 W + 1 W) (stereo)

Connection terminals:

RGB/YP_BP_R IN: Dual-line D-SUB HD 15-pin (female)

During YP_BP_R input:

Y: 1.0 V [p-p] (including sync signal), 75 Ω

P_B,P_R: 0.7 V [p-p], 75 Ω

Connection terminals**During RGB input:**

| | |
|---------------------|---|
| R.G.B.: | 0.7 V [p-p], 75 Ω |
| G.SYNC: | 1.0 V [p-p], 75 Ω |
| HD/SYNC: | TTL high impedance, automatic plus/minus polarity compatible |
| VD: | TTL high impedance, automatic plus/minus polarity compatible |
| AUDIO IN (for RGB): | Double-line 0.5 V [rms] M3 jack (Stereo MINI) |
| VIDEO IN: | Single-line, RCA pin jack 1.0 V [p-p], 75 Ω |
| S-VIDEO IN: | Single-line, Mini DIN 4-pin Y 1.0 V [p-p], C 0.286 V [p-p], 75 Ω |

AUDIO IN**(for S-VIDEO/VIDEO):** 0.5 V [rms] RCA pin jack x 2 (L-R)

| | |
|------------|---|
| AUDIO OUT: | Single-line 0.5 V [rms] M3 jack (Stereo MINI) (Monitor output/stereo compatible) 0 V [rms]–2.0 V [rms] (variable) |
|------------|---|

Serial connector: D-sub 9-pin (female) RS-232C compatible

SD memory card slot: Single-line, SD memory card/multimedia card compatible

For JPEG still images (DCF/EXIF2.1 compliant)

Cabinet: Moulded plastic

Dimensions:

| | |
|---------|---------------------------------------|
| Width: | 233 mm (9 5/32") |
| Height: | 98 mm (3 27/32") |
| Length: | 330 mm (13") (with lens cover fitted) |
| Weight: | 3.9 kg (8.6 lbs.) |

Operating environment:

| | |
|--------------|---------------------------|
| Temperature: | 0 °C–40 °C (32 °F–104 °F) |
| Humidity: | 20%–80% (no condensation) |

Certifications: EN60950, EN55022, EN61000-3-2, EN61000-3-3, EN55024

Remote control unit:

Power supply: 3 V DC (Lithium CR2025 battery x 1)

Operating range: Approx. 7 m (23') (when operated directly in front of signal receptor)

Weight: 18 g (0.6 ozs.) (including battery)

Dimensions:

Width: 40 mm (1 9/16")

Height: 6.5 mm (1/4")

Length: 86 mm (3 3/8")

Options: Ceiling bracket ET-PK701

Full function remote control unit ET-RM100

Trademark Information

- The SD logo is a trademark.
- Windows and Powerpoint are trademarks or registered trademarks of Microsoft Corporation in the United States of America and other countries.
- Macintosh and Mac are registered trademarks of Apple Computer Inc.
- All other model names, company names or product names are trademarks or registered trademarks of their respective owners. TM and (R) symbols identifying trademarks and registered trademarks are not otherwise used throughout this manual.

Matsushita Electric Industrial Co., Ltd.

Web Site : <http://www.panasonic.co.jp/global/>

Made in Japan
S1200-2081C